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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,871	03/25/2004	Fansan Zhu	2565/115	6622

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EXAMINER	
ROY, BAISAKHI	
ART UNIT	**PAPER NUMBER**
3737	
MAIL DATE	**DELIVERY MODE**
01/23/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/808,871	ZHU ET AL.	
	Examiner	Art Unit	
	Baisakhi Roy	3737	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 October 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to Kaiser have been fully considered but they are not persuasive. With respect to the rotation of the electrode around the longitudinal axis, the electrode arrangement as described in Kaiser is capable of rotating around the longitudinal axis with respect to each other in any direction in a plane which is at right angles to the drawing plane (fig. 1). Kaiser teaches that the electrodes may be arranged in any particular order to enable the detection of various lesions or regions of interest from various angles or planes. Therefore it would be obvious to one of ordinary skill in the art to use the rotatable electrode arrangement in Kaiser to modify the teaching in Brown for better and more visible treatment measures.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Thielecke et al. (2004/0209351) and further in view of Kaiser. Brown discloses a system for performing electrical impedance tomography comprising multiple sets of electrodes in different planes (col. 3 lines 63-67, col. 4 lines 1-20). Brown teaches a current source configured to inject current between the electrodes with

switches to connect the electrodes and a processor to control the switches and a voltage measurement device to measure voltage between the electrodes (col. 2 lines 26-33, col. 3 lines 26-40). The reference further teaches positioning the electrodes in various arrangements with the patient body part to be placed between the lower and upper portions (col. 2 lines 66-67, col. 3 lines 1-6) and includes an output of the current density distribution (col. 3 lines 38-43). Brown also teaches said device to measure voltage synchronized with the breathing period (col. 2 lines 40-44, col. 4 lines 41-50). Brown teaches placement of the electrodes in various planes but does not teach positioning the different sets of electrodes in planes intersecting the longitudinal axis In the same field of endeavor Thielecke et al. disclose an electrode arrangement where the multiplicity of electrodes are disposed in a plane perpendicular to the longitudinal axis [0034]. Thielecke et al. also teach an electrode arrangement as shown in fig 7 for impedance measurements with electrodes 10' and 10" disposed in a four-electrode configuration [0041]. Thielecke et al. teach a housing or measuring chamber formed by a capillary which includes a multiplicity of electrodes disposed in the capillary wall in a plane perpendicular to the longitudinal axis [0034]. It would have therefore been obvious to one of ordinary skill in the art to use the teaching by Thielecke et al. to modify the teaching by Brown for the purpose of effectively performing impedance measurements [0020].

Brown however does not teach or suggest rotating the electrodes around an axis. In the same field of endeavor Kaiser discloses a device for treating tumors including an electrode arrangement where the electrodes are rotatable about an axis X-X arranged

in the drawing plane (col. 2 lines 1-5) and where the electrodes are rotatable in any desired steps in a plane E which is at right angles to the drawing plane (col. 2 lines 15-17). Kaiser teaches a housing or carrier 19 configured to support the electrodes and configured to receive a body part within the housing or carrier. Kaiser also teaches enclosing the organism part 10 by a rigid and insulating shell 27 to maintain a constant shape (col. 3 lines 29-48). Kaiser teaches the use of treatment method to treat various tissues and therefore it would be obvious to treat a body part such as an arm, leg, or calf. It would have therefore been obvious to one of ordinary skill in the art to use the teaching by Kaiser to modify the teaching by Brown for the purpose of generating a current density distribution in other planes as well for improved resolution.

3. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of Thielecke et al. in view of Kaiser and further in view of Hart et al. (6231572). The prior art of record various biasing elements but do not explicitly teach a spring or a balloon. In the same field of endeavor Hart et al. disclose an electrosurgical catheter comprising a spring coupled to the electrode to bias the electrode against the balloon (claim 15). It would have therefore been obvious to one of ordinary skill in the art to use the teaching by Hart et al. to modify the teaching by Brown for the purpose of effectively biasing the electrodes in the desired orientation.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Baisakhi Roy whose telephone number is 571-272-7139. The examiner can normally be reached on M-F (7:30 a.m. - 4p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BR

BR

BRIAN L. CASLER
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